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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER				
NI, SUHAN				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/523,774

Applicant(s)

HARRISON, JOHN G

Examiner

Suhan Ni

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 21-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsman's Patent Drawing Review (PTO-940)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This communication is responsive to the response/amendment filed 09/27/2010.

Claim Rejections - 35 USC § 112, 1st Paragraph

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 3, 5, 7, 11, 13, 15 and 17 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claimed features or limitations are not clearly supported by specification as following:

Regarding claim 1, the limitation of “**at least 50%**” in line 2 is not clearly supported by specification, since it lacks of teaching how such limitation has been determined.

Regarding claim 3, the limitation of “**between 60% to 90%**” in line 2 is not clearly supported by specification, since it lacks of teaching how such limitation has been determined.

Regarding claim 5, the limitation of “**between 1% and 40%**” in line 2 is not clearly supported by specification, since it lacks of teaching how such limitation has been determined.

Regarding claim 7, the limitation of “**between 1% and 10%**” in line 2 is not clearly supported by specification, since it lacks of teaching how such limitation has been determined.

Regarding claim 11, the limitation of “**at least 50%**” in line 3 is not clearly supported by specification, since it lacks of teaching how such limitation has been determined.

Regarding claim 13, the limitation of “**between 60% to 90%**” in line 2 is not clearly supported by specification, since it lacks of teaching how such limitation has been determined.

Regarding claim 15, the limitation of “**between 1% and 40%**” in line 2 is not clearly supported by specification, since it lacks of teaching how such limitation has been determined.

Regarding claim 17, the limitation of “**between 1% and 10%**” in line 2 is not clearly supported by specification, since it lacks of teaching how such limitation has been determined.

Claim Rejections - 35 USC § 112, 2nd Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 1, 3, 5, 7, 11, 13, 15 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the limitation of “**at least 50%**” in line 2 is indefinite, since it is not clearly how such limitation has been determined.

Regarding claim 3, the limitation of “**between 60% to 90%**” in line 2 is indefinite, since it is not clearly how such limitation has been determined.

Regarding claim 5, the limitation of “**between 1% and 40%**” in line 2 is indefinite, since it is not clearly how such limitation has been determined.

Regarding claim 7, the limitation of “**between 1% and 10%**” in line 2 is indefinite, since it is not clearly how such limitation has been determined.

Regarding claim 11, the limitation of “**at least 50%**” in line 2 is indefinite, since it is not clearly how such limitation has been determined.

Regarding claim 13, the limitation of “**between 60% to 90%**” in line 2 is indefinite, since it is not clearly how such limitation has been determined.

Regarding claim 15, the limitation of “**between 1% and 40%**” in line 2 is indefinite, since it is not clearly how such limitation has been determined.

Regarding claim 17, the limitation of “**between 1% and 10%**” in line 2 is indefinite, since it is not clearly how such limitation has been determined.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Based on the best understanding of the claim language regarding the 112, 1st and 2nd paragraph rejection above in paragraph 3-4, claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inamiya (U.S. Pat. - 5,206,466).

Regarding claims 1 and 11, Inamiya disclose a speaker cone (1) comprising: a hemp fiber; a quantity of non-hemp paper pulp and binding material (col. 3, lines 7-24) as claimed. But Inamiya may not clearly teach the hemp fiber in a concentration at least 50% as claimed. Since Inamiya does teach that the composition/quantity of materials for the cone can directly effect the acoustic characteristics and performance of the speaker (col. 3, lines 33-39, 52-68 and col. 4, lines 22-42), and Inamiya also suggests optimizing the disclosed invention (col. 6, lines 17-23), it therefore would have been obvious to one having ordinary skill in the art at the time the invention was made to be motivated to provide suitable composition, for example the hemp fiber

in a concentration at least 51.5%, for the cone of the speaker taught by Inamiya as an alternate choice, or designer's choice (may be guided by an experimental testing), in order to effectively design and manufacture a customized speaker with specific acoustic characteristics for certain application.

Regarding claims 2, 4, 6, 12, 14 and 16, Inamiya may not clearly teach all in details of the material as claimed, but Inamiya does not specially restrict to any material and also clearly suggests optimizing the disclosed invention (col. 6, lines 17-23). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to be motivated to provide suitable material (well known and commercially available) such as Manila hemp, for the cone of the speaker taught by Inamiya as an alternate choice, or designer's choice (may be guided by an experimental testing), in order to effectively design and manufacture a customized speaker with specific acoustic characteristics for certain application.

Regarding claims 3, 5, 7, 13, 15 and 17, Inamiya may not clearly teach all in details of the further composition of the material, Since Inamiya does teach that the composition/quantity of materials for the cone can directly effect the acoustic characteristics and performance of the speaker (col. 3, lines 33-39, 52-68 and col. 4, lines 22-42), and Inamiya also suggests to optimize the disclosed invention (col. 6, lines 17-23), it therefore would have been obvious to one having ordinary skill in the art at the time the invention was made to be motivated to provide suitable composition, for example the hemp fiber in a concentration between 60-65%, for the cone of the speaker taught by Inamiya as an alternate choice, or designer's choice (may be guided by an experimental testing), in order to effectively design and manufacture a customized speaker with specific acoustic characteristics for certain application.

Regarding claims 8-10 and 18-20, Inamiya may not clearly teach all in details of the material as claimed, but Inamiya does not specially restrict to any material and also clearly suggests optimizing the disclosed invention (col. 6, lines 17-23). Furthermore, providing suitable and commercially available material for a cone is very well known in the speaker art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to be motivated to provide suitable material (well known and commercially available), such as water proof coating material, for the cone of the speaker taught by Inamiya as an alternate choice, or designer's choice, in order to make the speaker more durable, especially under high humidity environment.

Response to Amendment

5. Applicant's arguments dated 09/27/2010 have been fully considered, but they are not deemed to be persuasive.

Regarding the rejection of claims 1, 3, 5, 7, 11, 13, 15 and 17 under 35 USC § 112, first/second paragraph, the applicant argues:

The specification states "In the **preferred** embodiment, the composition includes any proportion greater than 50% hemp fiber, **e.g., approximately 80% hemp pulp, and 20% other material ...**". The specification goes on to state "The resultant speaker cones have been found to have superior tone and sonic properties (e.g., no distortion or ghost notes) and increased durability (e.g., increased power handling capability) when compared to other known speaker cone constructions", and provides **numerous examples** of various compositions

in the detailed description, with proportions corresponding to the limitations cited in the claims.

The examiner respectfully disagrees with the applicant. The applicant still fails to persuasively provide evidence (usually testing reports) for supporting the claimed limitations, such as “a hemp fiber in a concentration of **at least 50%**” being inventive.

Regarding the rejection of claims 1, 3, 5, 7, 11, 13, 15 and 17 under 35 USC § 103, the applicants argue no motivation to combine the references. It is not necessary that the references actually suggest, expressly or in so many words the changes or improvements that applicants have made. The test for combining references is what the references as whole would have suggested to one of ordinary skilled in the art. **In re Sheckler, 168 USPQ 716 (CCPA 1971); In re Mlaughlin 170 USPQ 209 (CCPA 1971); In re Young 159 USPQ 715 (CCPA 1968).**

Furthermore, since the applicant fails to persuasively provide evidence (usually testing reports) for supporting the claimed limitations, such as “a hemp fiber in a concentration of **at least 50%**” being inventive (see above), it clearly supports the motivation of the 103 rejection (see above) as been obvious to one having ordinary skill in the art at the time the invention was made to be motivated to provide **suitable composition**, for example the hemp fiber in a concentration at least **51.5%**, for the cone of the speaker taught by Inamiya as **an alternate choice or designer’s choice** (may be guided by an experimental testing), in order to effectively design and manufacture a customized speaker with specific acoustic characteristics for certain application.

Conclusion

6. **THIS ACTION IS MADE FINAL.** See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Suhan Ni** whose telephone number is **(571)-272-7505**, and the number for fax machine is **(571)-273-7505**. The examiner can normally be reached on Monday through Thursday from 10:00 am to 8:00 pm. If it is necessary, the examiner's supervisor, **Curtis A. Kuntz**, can be reached at **(571)-272-7499**.
8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (**PAIR**) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).
9. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is **(571)-272-2600**, or please see <http://www.uspto.gov/web/info/2600>.